

# THE TECH

Boston, Massachusetts.

December 5, 1895.

Volume XV.

Number 10.

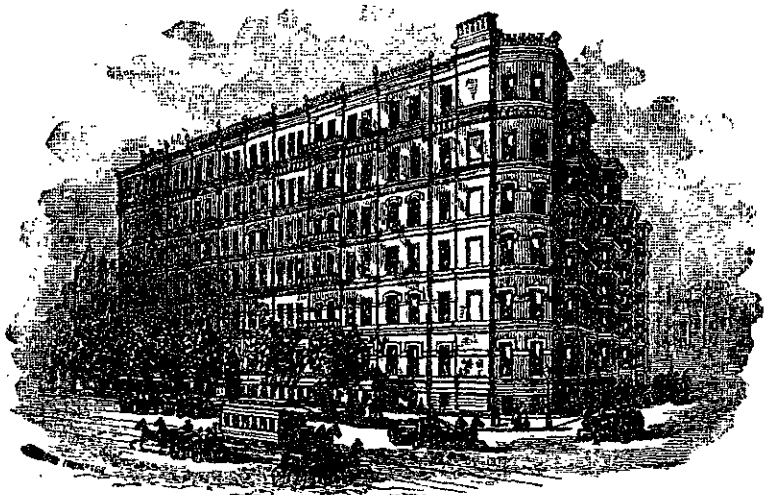
WE GUARANTEE TO MEET IN COMPETITION  
any Tailoring concern in this city, in the matter of Fit, Quality, and Price.

**HIBBARD, MASON CO.,**  
**FINE TAILORING,**

Dress Suits, Silk Lined, to Order, \$45.

515 Washington Street, Boston.

**THE HOTEL HUNTINGTON,**  
Copley Square and Huntington Avenue.



C. A. JONES & CO., Proprietors.

**STUDENTS' SUPPLIES.**

Blank Books, Note Books, Drawing Papers, Pens, Inks  
of all kinds, Fountain Pens.

**PERIODICALS AND MAGAZINES.**

Writing Paper and Envelopes with TECH Monogram  
and Imprint Paper by the pound, at

**SOUTHWELL'S,**

Corner Dartmouth Street and Columbus Avenue,  
and 439 Boylston Street.

2d door from Berkeley Street.

**OAK GROVE CREAMERY COMPANY,**  
**DAIRY LUNCH ROOM.**

445 BOYLSTON STREET, COR. BERKELEY, opp. Y. M. C. A. Building,

Where can be had Sandwiches of all kinds, Soups, Tea, Coffee, and regular Dairy Lunch.

**EVERYTHING FIRST CLASS.**

Pure Fresh-churned Butter, in Quarter-pound Prints, Five and Ten Pound Boxes,  
Pure, Fresh Milk and Cream, delivered in Glass Jars. Fresh-laid Eggs.  
Pure, Full Cream Cheese, American (plain), Sage, Neuf-  
chatel and Edam. All kinds of Fruit Ices.

**NELSON L. MARTIN.**

**STUDENTS' SUPPLIES.**

**Drawing Instruments and Materials of all kinds**

GET THE BEST!—**FOUNTAIN PENS.**—WATERMAN'S IS THE BEST.

Lowest Prices and Finest Quality of Goods Guaranteed.

At Room 10 Engineering Building and Basement of Architectural Building.

**R. J. NORMAN.**

# CIVIL ENGINEERS

Who are looking for a chance to step into a large and increasing business, employing several hands, will do well to look into this. A partner having a half interest in business in city of 35,000 inhabitants, with large suburban population, being engaged in work which requires his entire attention, wishes to dispose of his share of the business. Communications sent to VINAL '97, M. I. T., will reach their destination. Easy terms.

**Drawing Boards, Papers,  
Inks, Pens, Instruments, and Fountain Pens**  
At Discounted Rates.

**A. D. MACLACHLAN,**  
Tech Co-operative Store,  
214 Clarendon St., - - Boston, Mass.

EXTRA COPIES OF

## THE TECH

Can be found at THE TECH office,  
third floor, Rogers Building, and at

**A. D. MACLACHLAN'S,**  
214 Clarendon Street.  
Tech Co-operative Store.

## Bookbinding

IN EVERY STYLE:

**ALEX. MOORE, 3 School Street, BOSTON.**

**C. E. RICHARDSON,**

141—Dartmouth Street—141

**FURNISHING GOODS, and Agent for DARTMOUTH LAUNDRY.**

Orders by mail receive prompt attention.

Goods called for and delivered without extra charge.



**J. C. LITTLEFIELD,**  
**Tailor · and · Outfitter,**  
**21, 23 BEACON STREET, BOSTON.**

I can offer you a larger and more complete assortment than can be seen elsewhere, and at lower prices for the same qualities. Look in and examine my prices before placing your order.

**GOLF BREECHES, RIDING BREECHES, AND DRESS SUITS A SPECIALTY.**  
**DISCOUNT TO STUDENTS.**

# HASTINGS...

## PHOTOGRAPHER

To the Class of '95, M. I. T., and  
Tech Editorial Group '96,  
Pastels, Crayons, Water Colors.

**No. 146 Tremont Street,**  
**Over Huyler's.**

Branch . . . No. 1068 Boylston Street,  
Corner Massachusetts Avenue.

**S**ILVER MEDAL, Boston, 1881. Gold  
Medal, Boston, 1887. Grand Prize,  
P. A. of A., Washington, 1890. Bronze  
Medal, Washington, 1890. Gold Medal,  
Boston, 1892. Silver Medal, Chicago, 1893.  
Aristo Award, St. Louis, 1894. Gold  
Badge, Cramer Award, St. Louis, 1894.  
Special Diploma, Illustrative Class, St.  
Louis, 1894. Gold Medal, Boston, 1895.

## STANDARD CLOTHING CO.,

MANUFACTURING RETAILERS OF

# HIGH GRADE CLOTHING

From both Foreign and Domestic Fabrics.

ALSO ADVANCE STYLES IN TROUSERS, SUITS, AND OVERCOATS.  
Full Dress Suits Constantly on Hand.

395 WASHINGTON ST., - - BOSTON MASS.

## THE Union Gymnasium

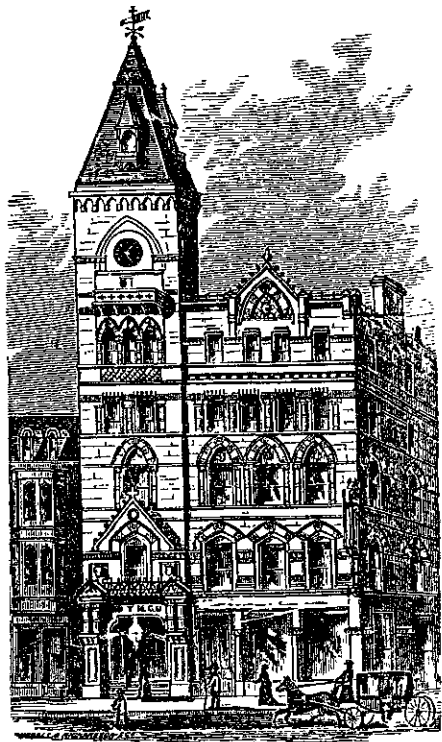
48 BOYLSTON ST. (near Tremont).

PRACTICAL.

Complete  
Modern  
Apparatus.

Popular  
Classes.

Terms,  
\$5 and \$8  
per Year.



POPULAR.

Extra  
Large  
Lockers.

Competent  
Instructors.

No Extra  
Charge  
for Instruction

**BOSTON YOUNG MEN'S CHRISTIAN UNION.**

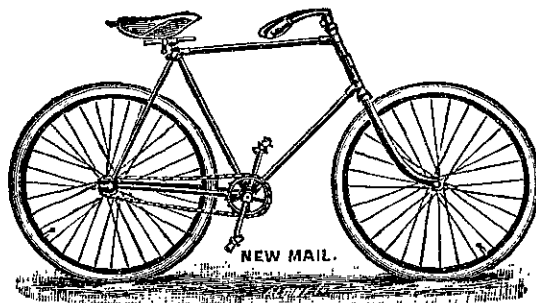
WM. H. BALDWIN, Pres.

GEORGE PEIRCE, Sec'y.

## NEW MAIL

HIGHEST GRADE LIGHT ROADSTER.

**\$85.**



MEN'S AND LADIES' pattern . . . \$85

Also **TEMPLAR**, best medium grade Man's  
Wheel . . . \$60

**ATALANTA**, Ladies' Pattern . . . \$60

Boys' and Girls' Wheels . . . \$15 up

A few Shopworn and Secondhand Wheels, taken in  
trade, at very low prices. Bargains. \$25, \$30, etc.  
Catalogue and Secondhand list.

**.. WILLIAM READ & SONS ..**

107 WASHINGTON STREET, BOSTON.

---

## L. P. HOLLANDER & CO.,

202 and 212 Boylston Street, and Park Square.

### High Grade Ready-made Clothing for Young Men,

EXCLUSIVELY OUR OWN MAKE.

We would call special attention to our very attractive lines of

Homespun and Scotch Tweed Sack Suits at prices ranging from \$18.00 to \$26.00.

Knickerbocker Trousers, \$6.50 to \$9.00.

Silk-lined Covert Coats, \$24.00 to \$26.00.

---

## Frank Wood,

### Printer,

### 352 Washington Street, Boston.

---

## The Massachusetts Institute of Technology,

BOSTON, MASS.

FRANCIS A. WALKER, PH.D., LL.D., PRESIDENT.

---

THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY offers courses, each of four-year duration, leading to the degree of Bachelor of Science, in Civil, Mechanical, Mining, Electrical, Chemical, and Sanitary Engineering, in Architecture, Chemistry, Physics, Biology, Geology, and Naval Architecture. A less technical course, in General Studies, is offered to students wishing to qualify themselves for business pursuits.

To be admitted to the first-year class, applicants must have attained the age of seventeen, and must pass satisfactory examinations in Algebra, Plane Geometry, English, History, French (or German), and Advanced Algebra or Solid Geometry.

A division of these entrance subjects between two successive years is, with certain restrictions, permitted.

Entrance examinations are held at the Institute in June and September of each year. In June, applicants are examined in New York, Philadelphia, Chicago, and other principal cities. A circular stating times and places is issued in advance, and will be mailed on application.

Graduates of colleges and scientific schools are admitted, without examination, to such advanced standing as is warranted by their collegiate training.

The catalogue of the Institute and any of the following descriptive circulars will be mailed free on application:—

MASSACHUSETTS INSTITUTE OF TECHNOLOGY: an illustrated pamphlet describing the laboratories of the Institute.

Of the departments of Civil Engineering; Mechanical Engineering; Physics and Electrical Engineering; Architecture; Chemistry; Biology; General Studies; Naval Architecture.

In regard to Opportunities for Teachers; The Lowell School of Design; Summer Courses.

H. W. TYLER, SECRETARY,

491 Boylston Street, Boston.

## FOOTWEAR.

All styles in Calf, Winter Russet,  
and Patent Leather.

Razor, Piccadilly, and Wide Toes.

Rubbers and Overshoes of all kinds.

PRICES REASONABLE.

Our \$4.00 and \$5.00 Shoes are  
of superior style and quality.

Discount to Technology.

**T. E. MOSELEY & CO.,**

469 WASHINGTON STREET.



Raphael, Angelo, Rubens, Tasso

The "LINENE" are the best and most economical Collars and Cuffs worn; they are made of fine cloth, both sides finished alike, and, being reversible, one collar is equal to two of any other kind.

They look like linen, and are the only goods that a well-dressed gentleman can wear in place of real linen.

They are not to be washed; all laundry trouble and expense are avoided.

They are perfect-fitting, retaining their shape better than any other goods.

A box of ten Collars or five pairs of Cuffs for twenty-five cents.

A sample Collar and pair of Cuffs by mail for six cents in postage stamps. Name style and size. Address

**REVERSIBLE COLLAR CO.,**

77 Franklin St., N. Y.

27 Kilby St., Boston.

## HOUGHTON & DUTTON,

Tremont and Beacon Streets,  
Boston.



**The Beacon Street Boot,  
\$3.97 a Pair.**

The correct thing for winter wear. Made of extra fine calf, and calf lined throughout. They have three soles with Scotch edge, and will keep the feet perfectly dry.

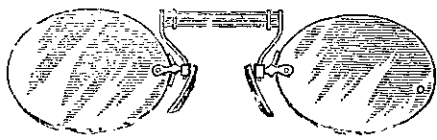
The price is ridiculously low for these fine welt shoes, but you can compare them with any \$6.00 shoe made and fail to see the difference.

We have a complete line of medium and fine Footwear. Take a look at it.

**CONTINENTAL CLOTHING HOUSE,**  
**MEN'S, BOYS', AND CHILDREN'S CLOTHING,**  
**GENTS' FURNISHINGS, HATS AND CAPS.**

Fine custom work made from measure. Uniforms of every description. Special attention given to **TECHNOLOGY** and **ENGLISH HIGH SCHOOL UNIFORMS**. Workmanship the best. Prices the lowest.

**CONTINENTAL CLOTHING HOUSE,**  
 Corner Washington and Boylston Streets, Boston, Mass.



OF ALL BAR SPRINGS THE FOUR-BAR IS THE BEST

**C. E. DAVIS,**  
 Manufacturing and Prescription Optician,  
 No. 2 Park Square, Rooms 1 and 2, Boston.

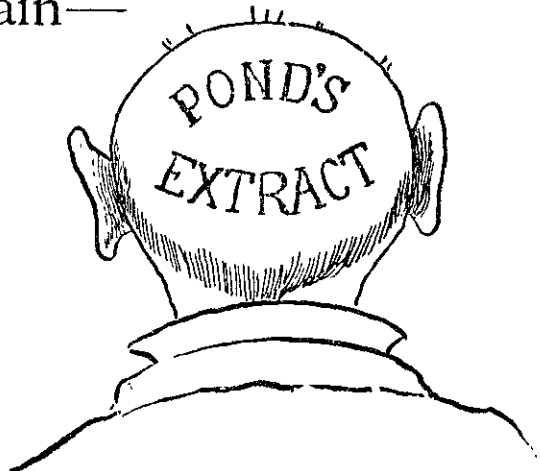
MAKER OF THE FINEST CLASS OF PRESCRIPTION OPTICAL WORK AT A SAVING OF 75 PER CENT ON OLD PRICES.

SAMPLE PRICES: Compound Cylinders in Steel (best quality), \$2.50. Artificial Human Eyes, to Patient, \$4.00. Fifteen per cent special discount to students.

IMPORTER OF ARTIFICIAL EYES.

SELECTION PACKAGES FURNISHED.

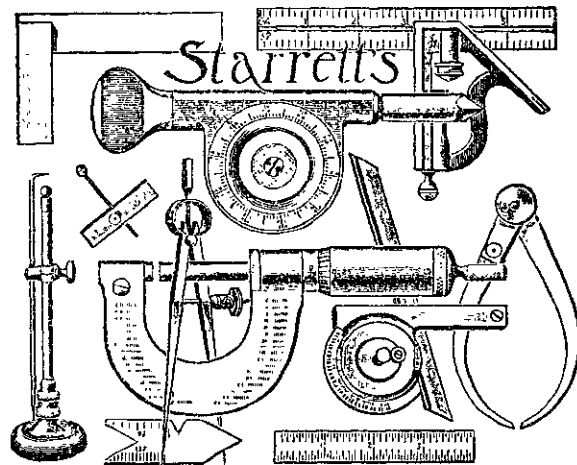
**Institute Men==**  
 have the reputation of knowing  
 a good thing when they see it.  
**POND'S EXTRACT** is a good thing;  
 the best thing obtainable for  
 sprains, cuts, inflammation, and  
 all pain—



**KEEP IT ON YOUR MIND—**

*that genuine Pond's Extract has a buff wrapper and yellow label.*

**POND'S EXTRACT CO., 76 5th Ave., New York.**



**30 HARDWARE DEALERS  
 IN BOSTON**

SELL STARRETT'S FINE MECHANICAL TOOLS

**THE BEST MECHANICS**

USE THEM.

**SEND FOR CATALOGUE No. 13.**

86 PAGES, ILLUSTRATED, FREE.

**THE L. S. STARRETT CO., BOX 62,**  
 ATHOL, MASSACHUSETTS.

TRADE MARK

# COLLINS & FAIRBANKS

CELEBRATED

## HATS

SOLE AGENTS FOR  
HENRY HEATH'S AND  
A.J. WHITE'S LONDON  
HATS

STYLES CORRECT  
QUALITY UNEQUALLED

381  
WASHINGTON ST. BOSTON



**Wm. Brooks & Co.**

**Importing Tailors**

15 MILK STREET.  
OPPOSITE OLD SOUTH CHURCH.

LONDON OFFICE, 6 SAVILE ROW, W.

BIRTHPLACE OF FRANKLIN.

BIRTHPLACE 1706.

THE LARGEST ASSORTMENT OF FOREIGN WOOLLENS SHOWN IN BOSTON

M. I. T. CO-OPERATIVE.



# THE TECH

VOL. XV.

BOSTON, DECEMBER 5, 1895.

NO. 10.

## THE TECH

Published every Thursday, during the college year, by students of the Massachusetts Institute of Technology.

CHARLES GILMAN HYDE, '96, *Editor in Chief.*

SHELDON LEAVITT HOWARD, '97, *Assistant Ed. in Chief.*

EDWARD ARTHUR BALDWIN, '96.

CLARENCE WARNER PERLEY, '96.

RALPH SPELMAN WHITING, '97.

THOMAS EDDY TALLMADGE, '98.

RAYMOND SMITH WILLIS, '98.

WILLIAM MONTAGUE HALL, '98.

CHARLES E. A. WINSLOW, '98.

LESTER DURAND GARDNER, '98.

CLARENCE RENSHAW, '99.

RAYMOND SMITH WILLIS, '98, *Secretary.*

W. R. STRICKLAND, '98, *Business Manager.*

Subscription, \$2.50 per year, in advance. Single copies, 10 cts. each.

*For the benefit of students THE TECH will be pleased to answer all questions and obtain all possible information pertaining to any department of the College.*

*Contributions are requested from all undergraduates, alumni, and officers of instruction. No anonymous manuscript can be accepted.*

Entered in Post Office, Boston, Mass., as Second Class Matter.



It is much to be hoped that Ninety-six will set a worthy example to future classes in the methods of electing Class-day officers—methods in which wire-pulling and machine politics are conspicuous by their absence. This devoutly to be wished consummation can only be ob-

tained by the general arousal of an active and intelligent public spirit among its members. Rumors of skillful electioneering, present and to come, are already in the air, and in order to get the best results it is necessary that every man should be on his guard. Eternal vigilance is the price of—a number of desirable things, including good Class-day officers.

When a class arrives at that eventful day when it presents to the world (a small world, to be frank, made up largely of admiring friends and relatives) the choicest fruits of its wit, and wisdom, and eloquence, the men who represent it should be simply the men best fitted for the position. What does it matter whether the orator, for instance, is a Civil, a Chemist, or an Electrical, a fraternity man or an anti-fraternity man; one can pull wires, by the way, as well as the other. Sometimes better, we should say, risking the suggestion of a slight Gaelicism.

Is not the honor of your class more to be considered than that of the small coterie to which you are attached by the same social or technical ties? That a small clique with a determined purpose can accomplish results which do not in any way represent the feelings of the community at large, is well shown in most any of our ward caucuses.

To guard against such misrepresentation it is necessary that every Senior should take a keen interest in his class affairs, and that he should think for himself, unselfishly and independently, unbiassed by pre-election courtesies and such minor considerations, looking only to the best interests of his class in its hour of triumph.

THE twenty-sixth annual report of the Massachusetts State Board of Health contains an account of a very interesting investigation made by Professor Sedgwick, as State Biologist, on the cause of a recent outbreak of typhoid fever in the city of Marlborough. The peculiarly limited area in which cases occurred enabled him to reassure the public after a few hours as to the water supply, about which great anxiety had been

felt. He next turned his attention to the milk service. Forty-nine of the fifty cases were found to be in households supplied by a local creamery with skimmed milk. One case occurred in the creamery itself. The subject was found to have been the driver of the milk wagon, and it is probable that the epidemic was propagated by him. This is the first case on record in America where an epidemic of typhoid fever has been traced to the use of infected skimmed milk.

THOSE interested in the future of tennis at Technology are to be congratulated on having at last obtained some outdoor courts. Through the efforts of Dr. Williams in the Corporation, and the assistance of Professor Burton, the ground behind the Architectural Building has been obtained, and is now being leveled. Four gravel courts will be finished by the Spring, if the men who have thus far had the matter in charge are backed up by the Institute at large. A Constitution has been prepared by the Executive Committee, and a meeting will be called within a few days for the purpose of organization. Those joining the Association at the first meeting will be charter members, and it is hoped that the success of the plan will be guaranteed by a large attendance.

WE are glad to learn of the complete vindication of one of the members of the Senior Class who was recently accused of a petty theft, and who, owing to the mysterious actions of the plaintiff, has been before the public eye for some time. From the first it seemed absurd that a man who had possessed an enviable reputation during his three years' connection with the Institute, could be capable of such an offense, and it is with pleasure that we find that after having learned the evidence in the case, the judge expressed the opinion that no warrant against the accused should have been issued.

PERHAPS enough has been said in contradiction of the misstatements recently made in one of the daily papers concerning "severe training at Technology." It is with much pleasure, however, that we reprint a portion of a very appreciative editorial in the *Transcript* of November 26th.

"An ignorant impression is certainly entertained, which is not in the least true, that parents may apprehend an excessive pressure upon their children to maintain their standing in any of its excellent courses. On the contrary, many of the best students find ample time for a proper indulgence in athletics and in literary and social diversions.

"An equally unfortunate line is pursued when such an institution as Technology is exclusively set forth as an employment bureau, to be sought only by 'grinds,' who emerge half dead, surrounded by the corpses of a vast majority of unsuccessful competitors, to receive the pledged reward of a certain and comfortable berth somewhere! Of course it is true that such an education implies many opportunities, and that they may be properly and reasonably contemplated. Yet the liberal education (which may be so called as fitly as that of Harvard) of the University of Technology is largely sought for its own sake and for the pure pleasure of its studies. Many of its students are content, without anticipation, to tread the pleasant paths of knowledge or to look forward only to the pittance which rewards the single-minded devotee of natural science,—far less sordid than many of those who are eager for the rewards of the 'professions' in sister institutions.

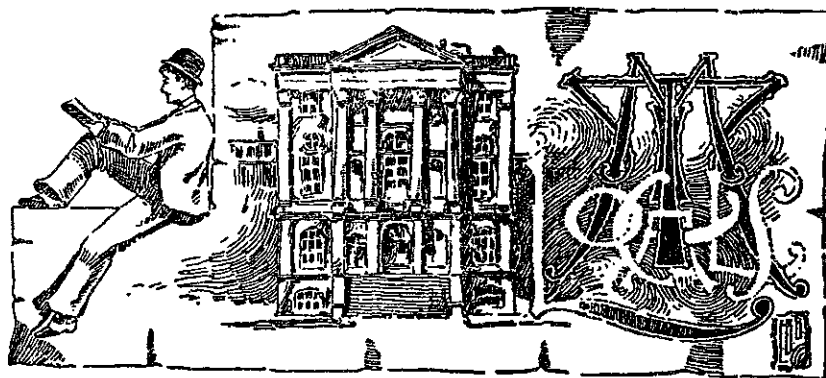
"With a distinct scholastic atmosphere of her own, under the guidance of many who make of science no mercenary mistress, in the calm and delightful pursuance of original investigation, Technology has become alma mater to hundreds who spend their student days under her wing, and look back to them when they depart with delight and enthusiasm."

AT the recent meeting of the Walker Club during which the proposed English play was under discussion, Professor Bates pointed out the fact that the success of the production would depend upon the laying aside of all those personal prejudices and vanities which so often crop out at amateur dramatic rehearsals, and impressed upon his hearers the necessity of entire subordination, on the part of the players, to the wishes of the "coach."

These words, coming as they did from one whose experience in dramatic work is so unquestionable, were not untimely, and although their force may not be so apparent at present, "to be forewarned is to be forearmed," and we trust that when the cast is made up its members will recall the Professor's apt quotation, "The play's the thing."

IT is unfortunate that a class in its second year at Technology must needs be reprimanded for breaking apparatus left upon the table of the lecture room where its class meetings were held. Such discourteous proceedings are especially to be condemned when, as is often the case, the room is put up at the disposal of the students at a considerable inconvenience to the officers in charge. We hope that, out of respect to Technology and to themselves, the members of the class will conduct themselves in a manner more creditable to their sense of decency and gratitude.

AT a meeting of the Board of Editors of THE TECH held November 25th, the resignation of Mr. E. Arthur Baldwin, '96, as Assistant Editor in Chief, was accepted, and Mr. Sheldon L. Howard, '97, was elected to fill the vacancy. Upon the acceptance of the resignation of Mr. Howard as Secretary, Mr. Raymond S. Willis, '98, was chosen Secretary of the Board.



The Chemical Library is now under the supervision of the General Librarian.

Huntington Hall was provided with a new system of ventilating pipes during the vacation.

Howell Fisher, '98, has been appointed to the Sophomore Cane Committee vice C. E. A. Winslow, resigned.

On the Wednesday before Thanksgiving Mr. C. Bernard was presented with a statuette of Venus de Medici by one of his students.

A case in the General Library has been set apart for the reception of all new works on technical subjects that are sent to the Institute for inspection.

The proof of the photograph of the Freshman football team taken last week was so unsatisfactory that it is probable that another sitting will be made.

F. E. Underwood, '97, the recently elected captain of the 'Varsity eleven for the season of '96, gained his first knowledge of the game at the Hartford High School.

The vacancy on the Cane committee of '98, caused by the resignation of Mr. Winslow, has been filled by Mr. Fisher. Mr. Gardner was chosen chairman of the committee.

Captain Bigelow is contemplating the formation of "field music" for use on special occasions. There will be seven drums, eleven trumpets, and seven fifes, if good players can be secured.

Scotch airs have crept into the repertoire of the Glee Club this year, and these substan-

tial melodies added to the usual number of funny selections will prove a great success at the coming concerts.

Owing to the poor attendance at rehearsals, the Banjo Club is not in its old time form this year. It is to be regretted that a sufficient number of enthusiastic players cannot be found who are willing to keep this club up to its former excellent standard.

The attention of those taking lectures in Military Science is called to the fact that hereafter the doors of Huntington Hall will be closed promptly at five minutes past eleven. On Fridays the door of the Armory will be closed at five minutes after two.

At the regular meeting of the Biological Club on October 19, a paper on "The Reduction of Chromosomes in Living Organisms," was read by Mr. C. W. Perley, '96. Professor Sedgwick concluded with an account of "A Fresh-Water Biological Laboratory."

At the meeting of the Biological Club held on the 26th of this month, Mr. Prescott spoke on "The Proteids of Wheat, Rye, and Barley," and Professor Sedgwick discussed some recent botanical papers entitled "Dissemination by Joints and Spines," "The Origin of Starch Grains," and "The Structure of the Bacterium Cell."

Le Moyne, our old guard, played a great game of football in Chicago Thanksgiving day, on the B. A. A. team, against the Chicago Athletic Association. He played against Heffelfinger, and although he was injured severely stayed in the game until carried off the field. Mr. Elliot Sturgis, '84 of the Institute, umpired the game.

The rumor that the Freshman football team is to play the Harvard Freshmen has caused quite a stir in athletic circles. We should be glad to see such a game played, as it is evident from the showing made at the Sophomore-Freshman contest that our first-year men

are capable of playing good football, and if forced could give a much stronger team a hard game.

The announcement of a course of lectures by Professor Despradelle on contemporary French Architecture is arousing much interest among architects in this vicinity. Professor Despradelle is one of the celebrated Beaux Arts architects, and is distinguished for having received the award of the Prix de Rome. This course, which is part of the Lowell Free Lecture Series, is to be given in French, and illustrated by stereopticon views.

The Architectural, Physical, and Chemical Libraries of the Institute have materially enlarged by the gift of Mr. Thomas Gaffield, a member of the Society of Arts, of two hundred and sixty volumes pertaining to the making of glass. Some of the books are extremely valuable, and contain very rare pictures of the different stages of glass making. Two of the most expensive volumes contain the history of the development of the manufacture of stained-glass windows.

A meeting of the students interested in the English Play which the Walker Club proposes to present during Junior week, was held in the Course IX. reading room on November 26th. The Chairman, Mr. C. W. Bradlee, '97, introduced Professor Bates, who spoke at length upon the requisites for the proper production of a play. He advised the presentation of two short comedies in place of an old English drama, and recommended that a professional coach be secured, who should have carte blanche in selecting and drilling the players. At the close of the meeting some twenty-five men signified their willingness to aid the Club in carrying out its projects, and as many of those enrolled have had previous experience in amateur dramatics, the outlook is decidedly encouraging.

Every student in military drill has been requested to furnish the military department

with information as to his military service prior to his admission to the Institute, or to the commencement of the present term. This information has been obtained from all excepting two, and has been tabulated to show the number of students who have held certain grades, and the number that have served certain periods irrespective of grade. The result of the reports is as follows:—

TABLE OF PREVIOUS GRADES.

Field and Staff officers . . . . .	9
Company officers . . . . .	34
Non-commissioned officers . . . . .	27
Privates . . . . .	56

126

No previous service . . . . .	133
Not classified . . . . .	2

261

TABLE OF PREVIOUS SERVICE.

One year or less . . . . .	27
More than one, and not more than two years .	26
More than two, and not more than three years	36
More than three years . . . . .	36

125



At the annual meeting of the 'Varsity Football Team held in Room 11, Rogers, on Monday, November 25th, at 4.15, F. E. Underwood, '97, of Auburndale, was elected captain for the season of '96. A unanimous vote of thanks was extended by the team to both Manager Mansfield and Captain Manahan for their untiring efforts during the past year. The team has adopted a new style of sweater, which will consist of a gray body with a red collar.

The Annual Indoor Class Championship Games will be held in the Gymnasium, Saturday evening, December 14th, at 7.30 o'clock.

The events will be as follows: 35-yard dash, standing broad jump, shot put, rope climbing, 35-yard low hurdles, running high jump, potato race, wrestling match. No one will be allowed to compete unless a member of the Athletic Club. Class captains must hand all entries to H. P. Beers on or before December 11th.

'Twas the maid who to bloomers aspired  
Whose riding was greatly admired,  
Till a cabby one day  
Knocked her into the clay—  
Then the bloomers and bike were re-tired.

WHITE.

## APPLIED MATHEMATICS.

"My daughter," and his voice was stern,  
"You must set this matter right;  
What time did the Sophomore leave,  
Who sent his card last night?"

"His work was pressing, father dear,  
And his love for it was great;  
He took his leave and went away  
Before a quarter of eight."

Then a twinkle came to her bright blue eye,  
And her dimples deeper grew,  
" 'Tis surely no sin to tell him that,  
For a quarter of eight is *two*."

—Lehigh Burr.

*The earth is kissed with brown,  
When the amber leaves come down.*

From the forehead of the greenwood  
They are gone,  
And they shine no longer emerald  
In the sun;  
And the winds that once did blow  
Very soft and very low

On the greenwood's head,  
Tear her brow-set wreath away,  
And in wanton mood they say

"Buds are gone,  
Well-a-day,  
Bloom is dead."

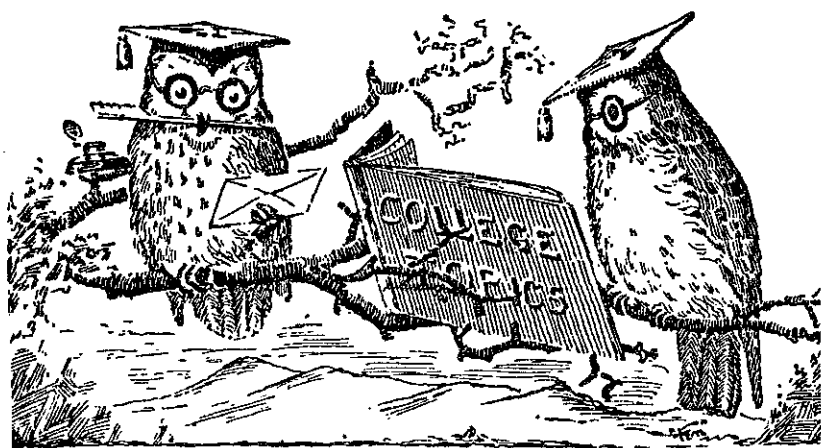
Till the mountains crumble down,  
This shall be,  
Till the rocks and sands dissolve  
In the sea;

So when leaves are dead and dry,  
And must thinly buried lie

Through the frosty blast,  
To our hearts we let them cling,  
Where their old-time whispers bring

Memories  
Of the spring  
In the past.

—Yale Courant.



Yale has a golf club of 150 members.

Columbia College has a library of 203,000 volumes.

Highlands is eligible for another year as pitcher of the Harvard baseball team.

The income of the University of Chicago for the coming year is expected to reach \$600,000.

The *Heidelberger Zeitung* published an announcement of the result of the Harvard-Princeton football game.

Five members of the Yale football eleven will graduate this spring, while Princeton will lose only one man, Captain Lea.

Harvard has not as yet chosen any captain for its ball nine. Scannel will probably be elected to that position in the spring.

Among the recent social events at Harvard was a dinner given by Prof. Charles Eliot Norton in honor of Mr. Rudyard Kipling.

The Rugby football championship of Canada was won by the University of Toronto, which defeated Montreal by the score of 20 to 5.

The Yale-Harvard debate will be held in New Haven about the first of May. Yale will choose the question, and Harvard has the choice of sides.

At a mass meeting of the Williams students, a test ballot showed that the feeling in favor of an honor system in examinations was almost unanimous.

The New London Board of Trade is making an effort to have a boat race arranged between Yale and one of the English University crews for next year at New London.

The increase of colleges in America during the last hundred years has been marvelous. Before the breaking out of the Revolutionary War nine were in existence, and the total number is now 451.

The Yale football eleven has decided to take a southern trip after the regular season in the northern states is ended. A game has been arranged for Christmas Day in Atlanta with the University of Georgia.

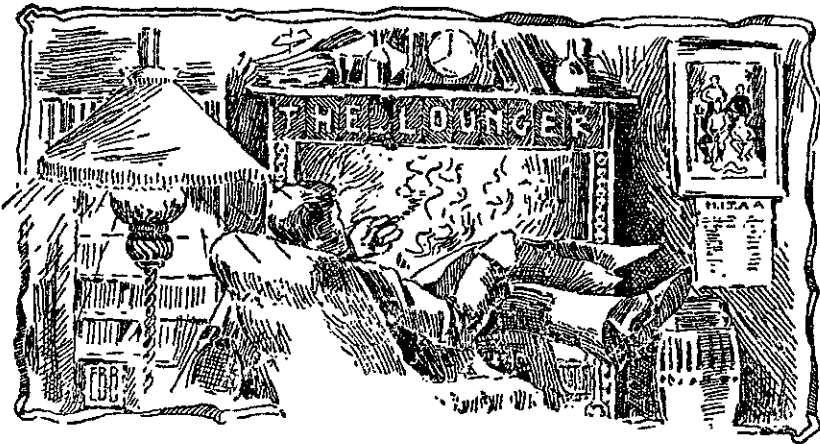
Fifty-four thousand dollars was spent at Yale last year on athletics. Of this amount ten thousand dollars was subscribed by the undergraduates, and the remainder was raised chiefly by the proceeds of baseball and football games.

Columbia College has been challenged by the universities of Minnesota and Wisconsin to boat races next year. Minnesota will come East in the spring, paying all expenses, if Columbia will go West the following year. Columbia will probably accept, if the events do not interfere with the tri-collegiate race at Poughkeepsie.

An instrument to test the speed of a baseball has recently been used at Princeton. By means of an electrical attachment in the pitcher's hand and another in the catcher's, the exact time is read from a chronoscope. It was found that Altman pitched a ball 60 feet in .6 of a second, and that Bradley threw a ball in .59 of a second.

A woman has been elected to the college board of trustees at Cornell. President Schurman says: "It is a courteous recognition of woman's right to govern as well as to study at Cornell; and if it shall have the effect of leading women to interest themselves in a practical way in promoting the development of the university, the precedent is pretty certain to be followed in future years."





THE Lounger is glad to announce his happy survival of another Turkey Day, and to welcome the coming weeks as a period of rest before the next vacation. The appreciative student—in which category the Lounger often finds himself—has, of course, marked the vouchsafing of an extra holiday at Christmas, and has made himself joyful accordingly. For the flighty youth who regards college life merely as a series of vacations, interrupted at stated intervals by more or less disagreeable periods of labor, the tiny holiday time cannot be so precious. To the hard worked but ever cheerful man, however, welcome indeed must have been this second announcement of an extra day, like unto that which last year caused THE TECH's talented snake editor to burst forth into verse at the head of the Christmas editorial. That piece of verse nearly took away all the pleasure of the Lounger's vacation; but that is long ago, now, so he will not consider it further.

At all events the Lounger is glad to see our Faculty progress in the matter of seasonable holidays. Whether their progressiveness is due to any efficient prodding from the rear is, of course, an aspersion which the Lounger would be the last to hint; but, as he has said, he commends them for their liberality, and, to reassure them for their possible haste, let him urge that in all probability Technology will continue to flourish, and just as many men will be graduated in '96 as if the extra holiday had not been instituted. As the Lounger may have said in the past, he is no rash devotee of precipitant innovations; but each lengthening of our meager term-time holidays, and the establishment of new periods in which to cultivate "days of Grace" and other things, ably alluded to in the Thanksgiving number, are acts of charity to which he can extend only his unqualified approbation.

The Lounger has been concerned to note an air of trepidation now prevalent in the corps of instructors,

the more so because he feels in a measure responsible. He has had the pleasure of perusing and revising a few of the jokes about to be sprung in the coming minstrel show, and he has felt it part of his friendly duty to the pros to acquaint them with their status in these witticisms. The Lounger is no alarmist, and would be the last to throw a pall over the anticipatory enjoyment of Christmastide; but he feels, nevertheless, that a note of warning should be sounded, and that all pros, instructors, janitors, office boys, and other functionaries should be advised, kindly and confidentially, to see that their sensibilities are suitably case hardened before the date for the show. The Lounger undertakes this task from no desire to aggrandize himself at anyone's expense, but having viewed the efforts, for this occasion, of the grind fiend, and having, also, contributed to the stock one or two modest attempts of his own, and, moreover, realizing fully the keen personal interest which surrounds the whole business, he has persuaded himself that the only fair thing was to make this brief announcement.

Selah!

With the advent of the interlocutor and the end man, and the approaching din of tambourine and bones, the retiring modesty which has overtaken the French and German societies has become painfully evident. The Gallic crowd, it is true, have assumed a semblance of life in the hilarity of their evening feasts, but the devotees of beer mug and pretzel appear to have suffered complete death. The expenses of the histrionic efforts of last spring have weighed heavily upon both organizations, and have evidently discouraged their members most heartily. The Lounger hopes, however, that this lamentable state may not endure long, and that enough interest may be aroused to insure the activity of one organization, if not the resuscitation of the other.

#### WHAT?

She gave me a glance—

What *will* rhyme with amiss?

There is little romance,

I must own, in a glance;

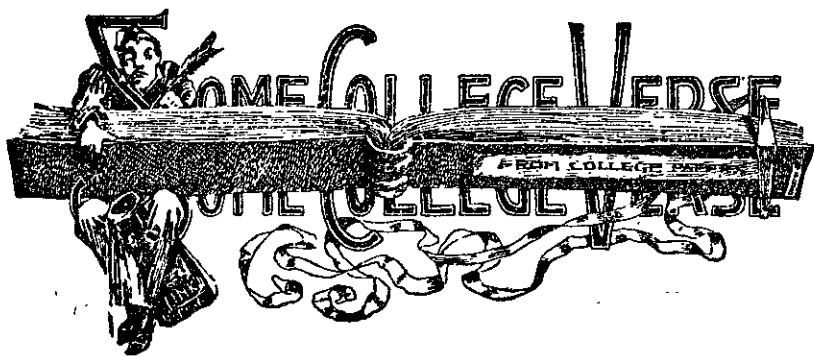
Yet it was an advance,

And I gave her for this—

When she gave me a glance,

What *will* rhyme with amiss?

—Princeton Tiger.



## SUNSET.

The golden glory quivers on the lake;  
 A robin's vester note sounds clear and true;  
 Beyond the far hill line, one long, pale cloud  
 Lies like a thought of God across the blue.  
 —Wellesley Magazine.

## ONE THING LACKING.

He was versed in all Philosophy,  
 He understood Theosophy;  
 Greek, Latin, Hebrew, Sanscrit,  
 To him were merely play.  
 In Conchology, Philology,  
 And else in Egyptology,  
 Biology, Psychology,  
 You'd find he was *au fait*.  
 He never used profanity,  
 Was noted for urbanity,  
 Could play a game of billiards  
 Or pitch a ton of hay.  
 He could sing like Campanini,  
 He could act like great Salvini,  
 And was often called upon  
 To lead Y. M. C. A.  
 But celestial capacity  
 And unexcelled sagacity  
 Cannot protect the victim  
 Of fickle Fortune's frown.  
 And when the girls, both great and small,  
 Learned that he couldn't play football,  
 They gently then, each one and all,  
 But firmly, turned him down.

—The Lafayette.

## INDIAN SUMMER.

As frosty age renews the early fire,  
 Whose eager flame in hazy warmth appears,  
 And brings once more across the shadowy years  
 The vanished dreams that kindle and inspire;  
 As time repeats the hour of young desire  
 In smoother laughter and more tranquil tears,  
 And childish pleasures mixed with needless fears,  
 Stir through the pulse of the withered sire—  
 So when November, sharp with frost and sleet  
 And moaning winds about the rocky height,  
 Has reaped the shining forest to his hand,  
 The charm of spring returns in mellower heat  
 To veil the leafless hills in mellower light,  
 And broods in peace above the naked land.

—Lehigh Burr.

## "FOUNDATIONS OF BELIEF."

"Shall we ever get through?" sighed a Freshman,  
 With the thought of the flunk notes galore,  
 "Shall we ever get safe to that haven  
 Of rest—the year Sophomore?"

A comforting classmate made answer,  
 "Of course we are safe. Don't repine.  
 Take courage. Go quick, read your Bible,  
 We belong to the ninety and nine."

—The Vassar Miscellany.

## LOVE'S LOGIC.

"Out of sight is out of mind,"  
 Yet "Absence makes the heart grow fonder;"  
 How can this paradox be true?  
 Does Dolly love me still, I wonder?

If absence makes the one forget,  
 And makes the other's love grow stronger,  
 And I to Dolly still am true,  
 Then Dolly's true to me no longer!

But both, I'm sure, cannot be true,  
 Or else were Reason naught but Folly:  
 And I'll believe her heart is mine  
 As much as mine belongs to Dolly!

—Harvard Advocate.

## AN ALL-AROUND MAN.

In the class room while students  
 More brilliant are known,  
 He finds no great hardship  
 In holding his own.

On the gridiron and diamond  
 With victories sown,  
 There too he is in it,  
 And holding his own.

And now in the evening,  
 When daylight has flown,—  
 But words are too feeble,  
 He's holding his Own.

—The Lafayette.

## KNIGHTED.

All night within the dim cathedral choir  
 He watched beside his armor; vigil kept  
 With prayer and fasting, while his fellows slept;  
 And as the gray dawn touched the cross-capped spire  
 There came to him a vision. Holy fire  
 Of pure devotion up within him leapt,  
 The song of service through his spirit swept,—  
 God's accolade bestowed on lowly squire.

When the sun shone across the world's new day  
 They found him at the altar. Not a trace  
 Of struggle on the fair uplifted face;  
 And as they bore him home they softly trod,  
 With reverent feet, as those who go to pray.  
 He died a squire. Asise, O knight of God!

—Wellesley Magazine.





### Football, Field and Country Outfits

Negligee Shirts	Fishing Shirts
Waterproofs	Gymnasium Suits
Sweaters	Guernseys
Towels	Wrappers

### English Waterproofs

For Ladies and Gentlemen

For Storm, for Street, for Traveling.  
The latest production, \$7.50 to \$45.00.

English Hold-alls  
Steamer Wraps and Rugs

## NOYES BROS.

Agents for the Celebrated

### HUMBER CYCLES.

In every cycle factory in the world HUMBER Cycles are admittedly the best product in cycle construction which inventive genius, precise methods, skilled mechanism, and unlimited facilities have produced. They are the standard of supreme excellence in all parts of the civilized world. Send for catalogue.

### SHIRTS.

Gentlemen's Dress and Business Shirts, \$1.50, \$2.00, \$2.50 and upward.  
NEGLIGEE SHIRTS, \$1.50, \$2.00 and upward.

### BICYCLE AND GOLF OUTFITS.

Lounging and Blanket Wraps, \$5 to \$25.

**CLOVES.** The New Grip Driving Glove, the Famous London Tan at \$1.35. Fownes' New Craven Tan, Fownes' New Cavendish Tan, Fownes' Best Cheverette Gloves.

**PAJAMAS** or East India Sleeping Shirts, and Long Night Shirts, made from English Flannels, Cotton and Silk, for steamer, sleeping car, yachting, or hunting.

**SPECIAL LAUNDRIES** for Dress Shirts, for Family Work, for Collars and Cuffs. The BEST work possible to be done.

## NOYES BROTHERS,

Washington and Summer Sts., BOSTON, MASS., U. S. A.

Established 1828.

## CHAUNCY HALL SCHOOL

HAS LONG MADE A SPECIALTY OF

PREPARATION FOR

## TECHNOLOGY.

REFERENCE is made to the INSTITUTE FACULTY in regard to the thoroughness with which Chauncy-Hall pupils are fitted, not only for entering the Institute, but also for pursuing successfully their subsequent work. Preparation, also, for business and for college.

393 Boylston Street, Boston.

(Very near the Institute.)

## If You Draw,

PURCHASE YOUR . . .

Drafting Instruments,  
Drawing and Blue Process Papers,  
Scales, Triangles, Curves,  
T Squares, Colors, etc.,

FROM THE MANUFACTURERS.

## Wadsworth, Howland & Co.,

INCORPORATED,

Branch Store: Grundmann Studios,  
adjoining Architectural Building.

Main Office: 82 & 84 Washington St., Boston.

Factories: Malden, Mass.

**SPECIAL RATES TO STUDENTS.**

## ALBERT BENARI, Tobacconist,

33 TREMONT STREET, - - BOSTON, MASS.

Cigarettes, Tobacco, and Smokers' Articles.  
Agent for Hale's Smoking Mixture.

**Scientific Books** } DAMRELL & UPHAM,  
The Old Corner Bookstore,  
283 Washington St., Boston.

## DR. CHARLES P. VESPER, DENTIST,

194 Boylston Street, opp. Public Garden,  
Boston.

## CLASS-DAY INVITATIONS,

BLANK BOOKS, FOUNTAIN PENS,

CAN BE FOUND AT THE CO-OPERATIVE STORE,

H. H. CARTER & CO., 5 Somerset St., near Beacon.

## MANDOLIN, Banjo and Guitar Lessons.

Instruments, Best Strings, Latest Music, etc.

G. L. LANSING, No. 171 Tremont St.

Ask for Mr. Lansing.

**Gentlemen!** I wish to call your attention to the fact that I am **paying** the **highest Cash Prices** for **Cast-off Clothing**. Also **Cleaning** and **Repairing** done at short notice. Money to loan. Send postal to . . . . .

**M. KEEZER,**

117 1-2 Pleasant Street, Boston.

I can be found outside the Technology Buildings on Boylston St. daily



**MESSINGER & JONES,**

**High Class**

**Tailors,**

388 Washington St., Boston.

ALL GARMENTS CUT IN STRICT ENGLISH STYLE.

M. I. T. Co-operative.

## New Tech Pin.

**HENRY GUILD & SON**

Have the best Tech Pin yet for 75 cents; also a combination of gold and silver for \$1.25. For sale at the Institute and

433 Washington St., Boston.

## OUT OF PAPER?

If so, no store in Boston can give you better value for your money than ours.

**BOSTON LINEN, BOSTON BOND, and BUNKER HILL**

are the nicest papers in existence, and can be had in all the correct sizes, daintiest tints and latest finishes. Full lines of Students' Notebooks, Theme Papers, and general stationery.

**SAMUEL WARD CO., 49 Franklin St., Boston.**

ALL KINDS

## Woodworking Machinery.

**S. A. WOODS MACHINE CO.**

172 High Street, Boston.

## COLUMBIA TAILORING ROOMS,

Ladies' and Gents'

## FINE \* TAILORING.

DRESS SUITS TO LET.

Fancy Dyeing and Cleansing. Goods called for and delivered free.

597 1-2 TREMONT ST., BOSTON.

I. SHEINWALD, Manager.

## PHILADELPHIA ICE CREAM COMPANY,

150 Tremont Street, Boston.

Telephone No. 1060.

E. M. LAWS, Prop.

Ice Cream Soda a Specialty.

Afternoon Delivery to Brookline and Highlands.

## TECH Trade Solicited.

REPAIRING, ALTERING, AND PRESSING

Done promptly and in satisfactory manner.

Latest Style GARMENTS Made.

**A. MOSMAN,** 423 Boylston Street  
(near Berkeley Street).

## CHAS. C. HUTCHINSON,

**SURVEYING INSTRUMENTS,**

Charts, Books, and Compasses.

150 AND 152 STATE ST., BOSTON.

**ARCHITECTURAL PHOTOGRAPHS,**

The Largest Collection in America.

All the best Public Buildings, Churches, Private Houses,  
and Business Blocks in Boston and New York.  
Richardson's Works of Importance from all over New  
England. Also a complete line of

**Art Photographs for Room Decoration.**

STUDENTS WELCOME TO EXAMINE, WHETHER DESIRING  
TO PURCHASE OR NOT.

**SOULE PHOTOGRAPH CO., Publishers,**  
338 Washington Street, Boston.

**FALL GOODS NOW READY.**

OF HAMILTON PLACE BOSTON.



Week beginning December 9, 1895.

**Tremont Theatre.**—Della Fox will be warmly welcomed at the Tremont in her new opera, "Fleur de Lis."

**Castle Sq. Theatre.**—Next week there is another treat in store at this charming theatre. We are to hear again the old favorite, "Fra Diavolo," and again enjoy the familiar strains of "On Yonder Rock Reclining."

**Boston Theatre.**—So tenacious a hold has "Burmah" upon the public that the management have been obliged to extend the time.

**Park Theatre.**—Roland Reed begins his campaign in Boston this week, and he can count on packed houses always. His acting is fine, plays always full of action and too irresistibly funny. Don't miss seeing him.

**Hollis Street Theatre.**—If you want to have the best laugh you have had in a year, go to see Miss May Irwin in "The Widow Jones." Her songs are great, particularly "I Want You, My Honey." Don't fail to go.

**Boston Museum.**—"Too Much Johnson" is having a phenomenal run at the Museum, and deserves the crowd which makes it necessary to place the orchestra under the stage, and puts standing room at a premium long before the curtain goes up.

**LEADING OUTFITTERS**

OF

**High Grade Mackintoshes**

AT POPULAR PRICES.

For the Principal Colleges in New England,  
Regular Co-operative Discounts.

**CLEVE & KRIM,**

Metropolitan Rubber Co.

49 Summer Street, Boston.

**SHOES****For STUDENTS AT TECH**

\$4, \$4.50, \$5, \$5.50, and \$6 a pair.

**Thayer, McNeil & Hodgkins,**Members of  
Co-operative.

47 Temple Place, Boston.

# F. L. DUNNE, Maker of Men's Clothes.

**Sporting and Mufti Dress of every Description.**

Exclusive London Fabrics for Golfing,  
Riding and Bicycling. Sample gar-  
ments of the Latest London Fashions  
in Sporting Clothes.

TRANSCRIPT BUILDING, BOSTON.

# COWLES ART SCHOOL,

145 Dartmouth Street.

Special attention given to EVENING CLASSES FOR TECH  
STUDENTS in life and cast drawing.

Address —————

**F. M. COWLES, Manager.**

Tuition, \$4.00 per Month.

Three Evenings per Week.

# THE BRUNSWICK BOSTON.

Boylston and Clarendon Streets,

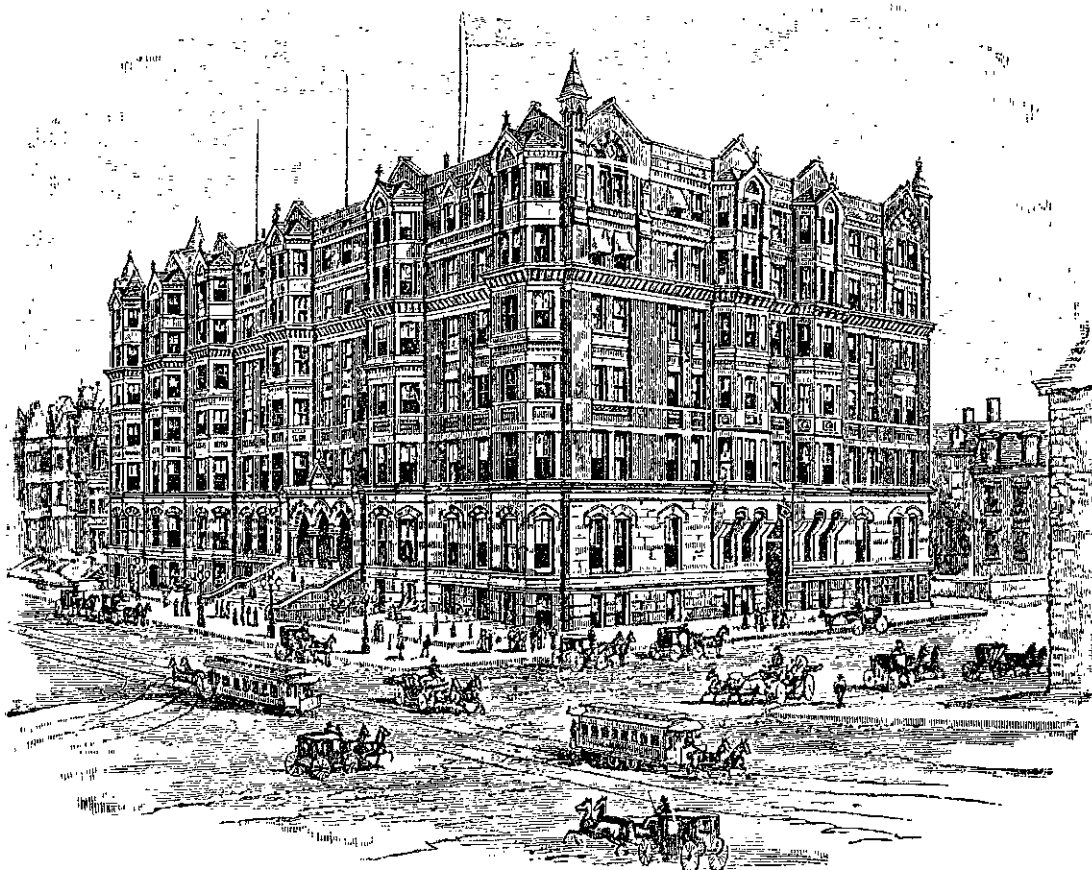
(Adjoining Copley Square)

Near the Museum of Fine Arts,  
New Public Library, New Old  
South Church, and opposite  
Trinity (Phillips Brooks')  
Church, and Institute  
of Technology.

**KEPT ON BOTH AMERICAN AND  
EUROPEAN PLANS.**

**BARNES & DUNKLEE, Proprietors.**

H. H. BARNES, Manager.



**FOOTBALL SUPPLIES** . . . We can furnish every requisite for the game —

**UNIFORMS, HEAD HARNESS, SHIN GUARDS,  
NOSE PROTECTORS, SHOES, etc., etc.**

A full assortment for Fall and Winter Sports. Send for complete Catalogue.

The OFFICIAL FOOTBALL GUIDE for 1895, edited by Walter Camp, and rules revised by committees from Yale and Princeton, and Harvard, Pennsylvania and Cornell. Price, ten cents.

**WRIGHT & DITSON, Boston, Mass.**

Wholesale, 95 Pearl Street.

Retail, 344 Washington Street.

# DAME, STODDARD & KENDALL.

We are making a specialty of

**FOOTBALL AND GYMNASIUM CLOTHING.**

Also carry everything pertaining to Football and Gymnasium Purposes

Discount to Tech students.

NO. 374 WASHINGTON AND NO. 2 FRANKLIN STREETS BOSTON.



## The Richmond Straight Cut No. 1 Cigarettes.

Cigarette Smokers who are willing to pay a little more than the price charged for the ordinary trade cigarettes, will find this brand superior to all others.

These **Cigarettes** are made from the brightest, most delicately flavored, and highest cost **Gold Leaf** grown in Virginia. This is the **Old and Original Brand of Straight Cut Cigarettes**, and was brought out by us in the year 1875.

*Beware of imitations*, and observe that the firm name as below is on every package.

**ALLEN & GINTER**

**THE AMERICAN TOBACCO CO., SUCCESSOR.**

Manufacturer,

**RICHMOND, VIRGINIA.**

## QUICK LUNCH BOYLSTON CAFÉ,

A. ALGAR, Proprietor.

707 BOYLSTON ST., corner Exeter.

## HOTEL PLAZA,

419 Columbus Ave., Boston.

Pioneer of the new hotel center in Boston. Noted for its superb location, superior rooms, excellent cuisine and service. Standard hotel for giving more value for price than any first-class hotel in city.

### BARBER SHOP

Everything in connection first class.  
College work solicited.  
Shaving, 10 cents.

### BILLIARD ROOM

F. S. FROST, Pres.

H. A. LAWRENCE, Treas.

H. C. GARDNER, Sec'y

## THE RIGHT PLACE TO BUY MATHEMATICAL INSTRUMENTS,

Colors, Drawing Papers, Blue Process Papers, T-Squares, Scales, Curves, Triangles, and all kinds of Architects' and Engineers' Supplies and

### Artists' Materials

AND PICTURE FRAMES, IS AT

**FROST & ADAMS CO.,** 37 CORNHILL,  
BOSTON, MASS.

NEW CATALOGUE FREE ON APPLICATION.

Importers, Wholesale and Retail Dealers.

Special Rates to the M. I. T. Students.

# GEO. H. GREENWOOD,

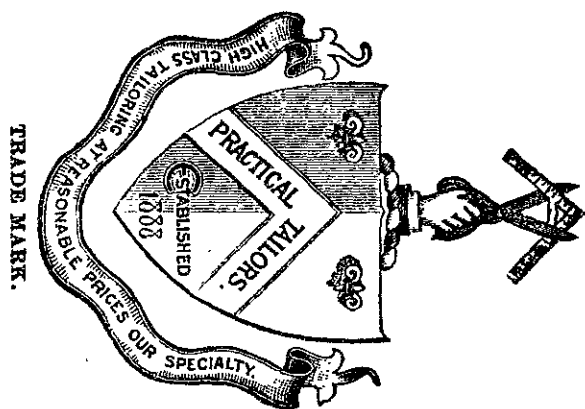
9 AND 11 BOYLSTON STREET,

DIRECT IMPORTER OF

## FRENCH AND ENGLISH BRIAR PIPES

AND SMOKERS' NOVELTIES

The Most Complete Stock of Fine Goods in the City.



**HIGH CLASS TAILORING**  
at Reasonable Prices  
our Specialty.

**Suits and Overcoatings,**  
\$35 and upward.

**TROUSERINGS, \$5 and upward.**  
Press Suits from all fashionable  
cloths, silk lined and faced, \$50  
and upward.

**NOTE.**—We are Practical Tailors and  
Cutters, and give our personal atten-  
tion to the cutting and fitting, all gar-  
ments being made up on the premises  
under our constant supervision, thus  
enabling us to produce the very best  
garment in fit, style, and workman-  
ship, and at a price which we are con-  
fident is about one third less than the  
same class of tailoring elsewhere.

INSPECTION OF SAME INVITED.

**ALLAND BROS.**

PRACTICAL TAILORS,

3 and 4 Park Street,

(STREET FLOOR)

Notice our Window Exhibit.

## Priest's Dining Room,

102 Dartmouth Street, Boston.

21 Meals (full ticket), \$4.00. 14 Meals, Breakfast and Dinner, \$3.00. 7 Meals, Breakfast, \$1.50.  
7 Meals, Lunch, \$1.40. 7 Meals, Dinner, \$1.75.

HOURS FOR MEALS.—Week Days: Breakfast 6 to 10; Lunch, 12 to 2.30; Dinner, 5 to 8. Sundays: Breakfast, 8 to 10.30; Dinner, 12.30 to 3.30; Lunch, 5.30 to 7.30.

C. M. PRIEST, Proprietor.

NECKWEAR

UMBRELLAS

**L. E. FLETCHER & CO.**

## College Hatters and Outfitters.

Latest Styles and Popular Prices. Custom Shirts a Specialty.

M. I. T. CO-OPERATIVE SOCIETY.

No. 158 Boylston Street, Boston.

GLOVES

CANES